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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,187	09/25/2001	Samir S. Soliman	010107	2812
23696 7590 04/22/2009 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121				
EXAMINER RAMAKRISHNAIAH, MELUR				
ART UNIT 2614		PAPER NUMBER		
NOTIFICATION DATE 04/22/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

09/965,187

**Applicant(s)**

SOLIMAN, SAMIR S.

**Examiner**

Melur Ramakrishnaiah

**Art Unit**

2614

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 11-16, 18-24, 32, 35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-16, 18-24, 32, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2-3-09
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2-3-09 has been entered.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 8-9, 11, 14, 15-16, 18-19, 23, 32, 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith (WO 01/63960) in view of Shi (US PAT: 6,507,740, filed 5-18-1999) and Feuerstien et al. (US PAT: 6,141,565, hereinafter Feuerstien).

Regarding claim 1, Raith discloses a wireless communication system comprising: a first transceiver in (12, fig. 1), a second transceiver in (12, fig. 1), a third transceiver in (20, fig. 1) in communication with the first transceiver, and a controller (not shown) configured to effectuate a handoff from the first transceiver to the second transceiver using a set of optimum parameters (this is implied as the reference teaches using position of mobile communicate device to optimize seamless handovers) that are

determined based on a current position of the third transceiver (20, fig. 1, page3, line 1 – page 4, line 4; figs. 1-2).

Regarding claim 8, Raith discloses a mobile unit comprising: a receiver in (20, fig. 1) configured to receive set of optimum system access parameters determined on a current position of the mobile unit (this is implied as the reference teaches using position of mobile communicate device to optimize seamless handovers), a controller (not shown) to effectuate handoff from first base station (12, fig. 1) to a second base station (like 12, fig. 1) based on the received set of optimum handoff parameters (20, fig. 1, page 3, line 1 – page 4, line 4; figs. 1-2).

Regarding claim 15, Reith discloses a base station comprising: a transmitter unit in (12, fig. 1) configured to transmit to the mobile unit (20, fig. 1) a set of optimum handoff parameters determined based on a current position of the mobile unit in a first coverage area (fig. 1) and a controller in (12, fig. 2) configured to effectuate a handoff from the first coverage area to a second coverage area based on the set of optimum handoff parameters (this is implied as the reference teaches using position of mobile communicate device to optimize seamless handovers: page 7 lines 19-24; page 3 lines 3-20; page 8, lines 2-4, lines 14-15; page 9 lines 1-21)

Regarding claim 23, Reith discloses a method for effecting handoff, comprising: determining a set of optimum parameters based on the current position of the mobile unit (20, fig. 1), and effectuating a handoff from the first coverage area to a second coverage area (see fig. 1) using a set of optimum parameters (this is implied as the

reference teaches using position of mobile communicate device to optimize seamless handovers: page 3, line 7 – page 4, line 4; figs 1-2).

Regarding claims 32, 35, 36, Reith discloses a computer readable medium embodying a method for effectuating soft handoff, the method comprising: determining optimum parameters based on the current position of the mobile unit (20, fig. 1), and effectuating a handoff from the first coverage area to a second coverage area using the set of optimum parameters (this is implied as the reference teaches using position of mobile communicate device to optimize seamless handovers: page 3, line 7 – page 4, line 4; figs 1-2), a memory unit in (26, fig. 2) and a digital signal processing (DSP) unit communicatively coupled to the memory unit, the DSP (reads on GPS 50, fig. 2) being capable of determining a current position of mobile unit in a first coverage area (page 9 lines 1-8).

Reith differs from claims 1, 8, 15, 23, 32, 35, 36 in that although he teaches that handover can be made seamless (which reads on effecting soft handoff: page 3 lines 19-20), he does not explicitly describe this as soft handoff, and optimum hand off parameters/soft hand off parameters/system hand off parameters depend upon on geographical characteristics of a cell coverage area in which the third transceiver is positioned.

However, Shi discloses adaptive threshold of handoff in mobile telecommunication systems which teaches the following: In a soft or “seamless” handoff case, the mobile has two or more links with different base stations that are involved in handoff process (fig. 1, col. 1 lines 46-53), and Feuerstein dynamic mobile

parameter optimization which teaches: and optimum hand off parameters depend upon on geographical characteristics of a cell coverage area in which the third transceiver is positioned (col. 4 lines 29-48; col. 5 lines 13-18; col. 10 lines 43-65)

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to recognize seamless handoff as equivalent process to soft handoff as explained by Shi so that user of the mobile communication system does not experience any break in communications; optimum hand off parameters/soft hand off parameters/system hand off parameters depend upon on geographical characteristics of a cell coverage area in which the third transceiver is positioned as this arrangement would facilitate to effect hand off to the base station which provide the optimal choice for communications as taught by Feuerstein.

Regarding claims 2-3, 9,11, 16, 18, Reith further teaches the following: controller configured to determine the current position of the mobile unit (20, fig. 1), current position includes a position of cell /sector coverage area (page 9 lines 1-13)

3. Claims 4-6, 12-13, 19-22, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reith in view of Shi and Feuerstein as applied to claims 1, 8, 15, 23 above, and further in view of Corbett et al. (US PAT: 6,934,546, hereinafter Corbett)

The combination differs from claims 4-6, 12-13, 20-22, 24 in that although it teaches the following: determining optimum system access parameters (abstract of '565) and it does not specifically teach: determining optimum soft handoff parameters.

However, Corbett discloses method and apparatus for control of soft handoff usage in radio communication systems which teaches the following: determining soft handoff parameters (col. 6 lines 45-54).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: determining optimum soft handoff parameters as this arrangement would facilitate to effect handoff based on soft hand off parameters, of mobile terminal between the base stations as taught by Corbett.

4. Claims 7, 14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith (WO 01/63960) in view of Shi (US PAT: 6,507,740, filed 5-18-1999) and Bonta (US2002/0077103A1).

Regarding claim 7, Raith discloses a mobile unit comprising: a receiver in (12, fig. 1) configured to receive set of optimum system access parameters determined on a current position of the mobile unit (this is implied as the reference teaches using position of mobile communicate device to optimize seamless handovers), a controller (not shown) configured to control mobile unit based on the received set of optimum system access-parameters (20, fig. 1, page 3, line 1 – page 4, line 4; figs. 1-2).

Regarding claim 14, Reith discloses a base station comprising: a transmitter unit (12, fig. 1) configured to transmit set of optimum system-access parameters (this is implied as the reference teaches using position of mobile communicate device to optimize seamless handovers) determined based on the current position of a mobile unit (20, fig. 1), and a controller in (12, fig. 1) configured to control the mobile unit based

on the set of optimum system access parameters (page 7 lines 19-24; page 3 lines 3-20; page 8, lines 2-4, lines 14-15; page 9 lines 1-21).

Raith differs from claims 7 and 14 in that although he teaches that handover can be made seamless (which reads on effecting soft handoff: page 3 lines 19-20), he does not explicitly describe this as soft handoff; optimum system access parameter depends on geographical characteristics of a cell coverage area in which the mobile unit is positioned.

However, Shi discloses adaptive threshold of handoff in mobile telecommunication systems which teaches the following: In a soft or "seamless" handoff case, the mobile has two or more links with different base stations that are involved in handoff process (fig. 1, col. 1 lines 46-53) and Bonta teaches the following: optimum system access parameter depend on geographical characteristics of a cell coverage area in which the mobile unit (12, fig. 2) is positioned (paragraphs: 0016-0017; 0025-0026; claims: 1, 4-5).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to recognize seamless handoff as equivalent process to soft handoff as explained by Shi so that user of the mobile communication system does not experience any break in communications; optimum system access parameter depends on geographical characteristics of a cell coverage area in which the mobile unit is positioned as this arrangement would facilitate to effect hand off to the base station which provide the optimal choice for communications as taught by Bonta.



***Response to Arguments***

5. Applicant's arguments with respect to claims 1-6, 8-9, 11-13, 15-16, 18-36 have been considered but are moot in view of the new ground(s) of rejection.

Rejection of claims 7 and 14 as being obvious over Raith (WO 01/63960) in view of Shi (US PAT: 6,507,740, filed 5-18-1999) and Bonta (US2002/0077103A1): regarding rejection of claims 7 and 14 using the above combination of references, Applicant alleges that "the combination of Raith, Shi, Bonta does not teach or suggest anything about "parameters" being "depend on geographical characteristics of a cell coverage area in which mobile unit is positioned." Thus applicant respectfully submits that claim 7 is allowable". Regarding this, as set forth in the rejection above, notwithstanding applicant's arguments on Bonta reference such as it teaches away from the claimed subject matter at issue, etc. Bonta teaches optimizing parameters based on geographical characteristics of cell coverage area because mobile station 12 (fig. 2) is located in cell coverage area I and parameters are optimized based on Mobile location in cell coverage area (paragraphs: 0018, 0025-0026, claims 1, 4-5). Further, Bonta teaches mobile station receives code corresponding to a system control parameter optimized for that region (paragraph: 0019), the region as can be seen from fig. 2 belongs to cell coverage area. Therefore, the combination Raith in view of Shi and Bonta still reads applicant's amended claims 7 and 14 as set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melur Ramakrishnaiah/  
Primary Examiner, Art Unit 2614